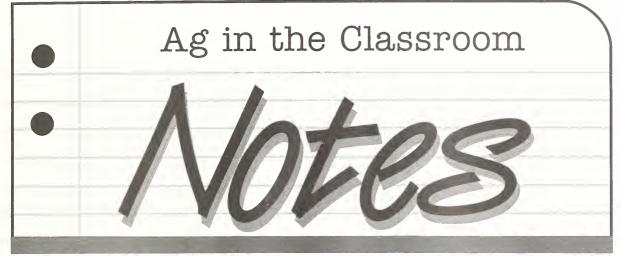
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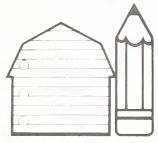


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A bi-monthly newsletter for the Agriculture in the Classroom Program. Sponsored by the U.S. Dept. of Agriculture to help students understand the important role of agriculture in the United States economy. For information, contact: Shirley Traxler, Director, Room 317-A, Administration Bldg., USDA, Washington, D.C. 20250-2200. 202/447-5727

United States
Department of
Agriculture



APRIL/MAY 1991 Vol.7, No. 3

Ag Employment Opportunities Excellent, New Study Shows

Although career opportunities in agriculture will remain excellent throughout the next decade, the number of people preparing for those careers is expected to shrink. Those are among the findings of a new study, Employment Opportunities for College Graduates in the Food and Agricultural Sciences.

"We found that we do not have sufficient numbers of people pursuing degrees in several of the careers — especially agricultural science and agricultural business," says Allan Goecker, one of the Purdue University researchers who conducted the study. "We need to encourage additional young people to consider careers in agriculture."

One of the areas of greatest shortfall, the study

found, will be for scientists, engineers, and related specialists. Although these jobs are expected to account for nearly 30 percent of the total projected annual openings for college graduates in agriculture, natural resources, and veterinary medicine, it is expected that a shrinking pool of college graduates will leave an annual shortage of 15 percent.

When graduates in food and agricultural sciences are not available to fill existing jobs, employers typically turn to allied fields, Goecker noted. "They may hire students with a background in biology, business, or engineering when they would Job opportunities for graduates in food and agricultural science are expected to exceed the number of graduates in these fields throughout the coming year, according to a new study conducted by Perdue University researchers.

continued on page 2......

Indiana AITC Curriculum Stresses International Awareness

Events in one country are increasingly linked to those in other nations of the world—and no American industry has been more responsive to the needs of the new global economy than agriculture. New Indiana AITC curriculum materials will help teachers face the challenge of preparing students for responsible roles in an increasingly shrinking world.

The materials build on existing curriculum developed to help teachers integrate agriculture into the study of Indiana history. Based on the positive teacher response to those materials, Robert Book, chairman of the Indiana Agricultural Awareness Council and state contact for AITC in Indiana, says "Our state department of education suggested that

continued on page 2......



From the Director

In this issue of "Notes" is a listing of special events related to agriculture. One that wasn't included is "National Drinking Water Week," which is celebrated May 5-11. A resource packet was sent to all Extension Service Directors by Myron Johnsrud, Administrator of the Extension Service, U.S. Department of Agriculture. Dr. Johnsrud says, "Water is one of our Nation's most valuable resources. It sustains our bodies; it is essential for the production of food and fiber, for industrial processes, for recreation, navigation and environmental aesthetics. Therefore it

is essential that we protect and preserve this valuable resource."For more information contact your local Extension Office.

Yours Truly

Shirley Traxler

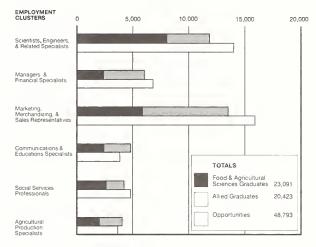
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To request a single copy of the study, write: Food and Agricultural Careers for Tomorrow 127 Agricultural Administration Bldg. Purdue University West Lafayette, IN 47907

Ag Employment Opportunities Excellent, New Study Shows

have preferred an agricultural science graduate." The one area in which there is expected to be a surplus of college graduates is in the field of communication and education. There will be "far more" graduates in electronic communications and journalism than there will be job opportunities, the study notes, adding that "writers who have specialized skills to become science editors or environmental correspondents will fare much better in the employment market."

Many of the jobs that will become available in the 1990s require an advanced degree. "Students need to recognize that there are excellent opportunities available if they have an interest in applying agriculture in science and the business field," Goecker notes.



Agricultural graduates with a specialization in marketing, science, or engineering will be in particular demand in the next decade

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Indiana AITC Curriculum Stresses International Awareness



there was also a tremendous opportunity to expand that curriculum, helping students see the international importance of products grown here in Indiana."

The new curriculum, called "International Agri-Awareness," includes interdisciplinary activities that help students learn about how Indiana exports affect the state's economy and its citizens. It also teaches students about agricultural products imported to Indiana and the impact of these products on the state's economy and its citizens. "The materials teach not only the importance of agriculture, but also geography, social studies, and math, through such activities as converting yen to dollars or dollars to pounds," Book says. The activities in the curriculum module are correlated with the Indiana Curriculum Proficiency Guide.

One of the goals of the curriculum is to encourage teachers to reach out to farmers, parents, soil experts, agri-businesses, and agricultural organiza-

tions. Activities include interviewing farmers, visiting local farms, and learning more about agriculture in other nations.

The education department put together a team of experts in agriculture and education to help develop the materials. The committee was chaired by Juma Bandawal, something of an expert in international agricultural awareness himself. Bandawal had served as secretary of education in Afghanistan before the Soviet invasion in 1980, then escaped with his family to Indiana.

Although many of the activities are appropriate for fourth graders, the materials can also be incorporated into classes at other grade levels. "These materials help us reach students up through middle school," says Book.

Spotlight

Parent Involvement Leads Teacher to Try Ag in the Classroom

When teachers are asked to name the one thing that could bring about the most positive changes in education, they usually ask for more parent involvement. For Robert Rocky, a fourth grade teacher at Pine View Elementary School, in the New Albany/Floyd County School Corporation in Floyd County, Indiana, parent involvement has an even deeper meaning. It was a parent who first introduced him to Ag in the Classroom.

Sylvia Hottel, a parent who works as a class-room coordinator for the Floyd County Extension Service, had a son in Rocky's class. "One day she mentioned that she had seen some wonderful curriculum materials that integrated agriculture into other subjects," Rocky says. "I asked her to get me a copy. And that was the beginning of a whole new approach to teaching."

After seeing the Indiana AITC curriculum, Rocky attended a teacher workshop on how to use it. That led him to attend another ... and another ... and then to become a workshop presenter. Today, he uses activities from a variety of agriculture curricula with the 60 students in his team-taught fourth grade class. Rocky teams with another fourth grade teacher throughout the day, dividing students for small-group instruction in some subjects, teaching the entire group in others.

The students range from mainstreamed learning disabled students to gifted children. Rocky has found that agricultural activities work well with students at all levels. "I incorporate cooperative learning activities whenever possible," he says, "and agricultural activities—especially those that emphasize the importance of preserving our natural resources—seem to capture the attention of every child."

Environmental awareness is something Rocky emphasizes in his classroom. He uses materials from Project T-2000, an Indiana program that is attempting to help conserve and rebuild Indiana topsoil, to teach students that they are stewards of the earth. "I see a real difference by the end of the year," he says. "They become very aware of how much paper they use. Some purchase recycled paper. These may be subtle changes, but they let me know that the message is sinking in."

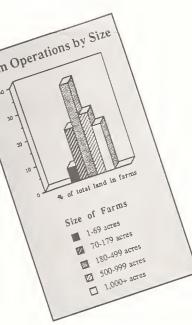
Rocky is aware that learning about agriculture and the importance of conservation has also changed his own attitudes ...and his own behavior. That, in turn, has had an impact on his students, he believes. "Good teaching, especially at the elementary level, is based a lot on modeling. As a teacher, I'm preparing citizens for the future. Children listen and they watch and they soak in a lot more than we realize. They will definitely pick up a discrepancy between what you say and what you do. Ag in the Classroom has helped me and my students become more aware of our responsibilities as stewards of the world in which we find ourselves," he concludes.

Indiana teacher Robert Rocky uses Ag in the Classroom to help his students learn more about the importance of conservation and preserving our natural resources.



Advertisement Would You Buy This Product? Why or Why Not?





New Ohio Curriculum Adapts the Best from Across the Country

One of the benefits of the AITC network is that it offers those concerned about agriculture an opportunity to share good ideas. When the Ohio Agriculture Awareness Council was developing a notebook of curriculum materials, they chose the best of what other states had developed to bring the best possible ideas to Ohio teachers and students.

Judy Roush, state contact for AITC in Ohio, acknowledges the help of other state AITC organizations in developing the materials. "We were tremendously impressed by the work done by the Idaho AITC group," she says. "We contacted them and asked if we could pick up where they had left off."

Other states also agreed to share activities. Materials from Arkansas, Illinois, Iowa, Montana, New York, and North Dakota have also been adapted for inclusion in the curriculum. "A number of other organizations, including the Ohio Agriculture Statistics Service, the Ohio Agriculture Education Curriculum Materials Service, and Ohio State University's Agriculture College, also provided us with much-appreciated help," Roush says.

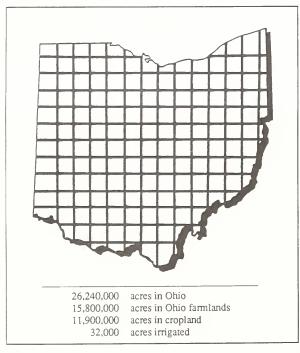
The curriculum guide offers 34 individual lesson plans, arranged under the four curriculum areas typically taught in fourth grade: language arts, mathematics, social studies, and science. "Al-

though it is designed for the fourth grade, the curriculum is easily adaptable to any of the upper elementary grades," Roush says. "It might well be that fourth grade could use 15 of the lessons, and the fifth grade at the same school could use 10, and sixth grade would use the remainder."

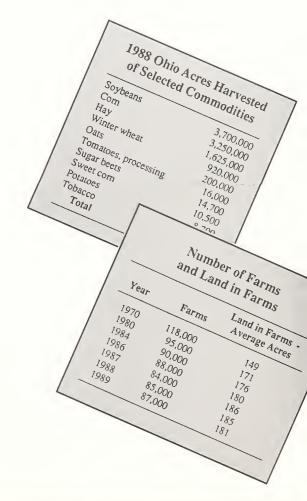
The Ohio curriculum has six goals. It helps students

- · learn to respect the land
- learn about the food chain and the cycle of life
- understand steps in the process of food production
- realize that crops have different life cycles
- discover that they are part of a global community
- and see that the value of land is directly proportional to their quality of life.

Since networking worked so well in developing the materials, Ohio's AITC program is also relying on networking to distribute them to teachers. "We have the active support of the high school agriculture teachers, who have a network of state contacts in each of Ohio's 88 counties," Roush says. That group is sharing information about the curriculum with elementary teachers across the state.



Facts about Ohio agriculture are included in a new curriculum notebook developed by the state AITC program.



A Calendar of Agriculture-related Events

By the time you receive this issue of Notes, you will have missed the opportunity to celebrate Egg Salad Week for 1991. But there's still plenty of time to plan activities around many of the other ag-related special events scheduled throughout the year.

The source for this information is Chase's Annual Events, a publication typically found in the resource section of most public libraries. Thanks to the Ohio Ag in the Classroom Program for sharing this calendar with other readers of Notes.

April

- Keep America Beautiful Month
- National Recycling Month
- Egg Salad Week
 April 1
- Earth Day April 22
- Grange Week and National Volunteer Week, April 21-27
- National Soil & Water Stewardship Week April 28-May 5

May

- National Barbecue Month
- National Egg Month
- National Photo Month
- National Asparagus Month
- Cheerios 50th Anniversary-first ready-to-eat oat cereal May 1-31
- National Weather Observer's Day May 4
- Rural Life Sunday May 5
- National Pet Week and Be Kind to Animals Week May 5-11
- National Wild Flower Week May 5-11
- International Pickle Weeks May 25-June 3

June

- National Dairy Month
- National Fresh Fruits & Vegetables Month
- National Adopt-a-Cat Month
- National Rose Month

July

- National Ice Cream Month
- National Hot Dog Month
- National Baked Bean Month
- National Picnic Month
- National July Belongs to Blueberries Month
- National Ice Cream Day July 21

August 🛝

- National Water Quality Month
- · National Catfish Month
- National Mustard Day August 5

September

- National Honey Month
- National Chicken Month
- All-American Breakfast Month
- National Farm Safety Week September 15-21
- Birthday/Anniversary of Johnny Appleseed September 26
- National Pickled Pepper Weeks September 26-October 14

October

- National Pork Month
- National Pizza Month
- National Seafood Month
- National Adopt-a-Dog Month
- National Popcorn Poppin Month
- World Farm Animals Day October 2
- National School Lunch Week October 6-13
- World Food Day October 16
- National Forest Products Week October 20-27

November

- Sandwich Day November 3
- National Split Pea Soup Month
- National Children's Book Week November 11
- Homemade Bread Day November 17

December

 Poinsettia Day December 12

January 1992

- National Soup Month
- National Oatmeal Month
- National Pizza Week January 13
- National Rice Day January 23
- National Popcorn Day January 26

February 1992

- Potato Lover's Month
- National Meat Month
- National Snack Food Month
- National Cherry Month
- National Pancake Week

March 1992

- National Peanut Month
- National Frozen Food Month
- National Nutrition Month
- National Pig Day
- American Chocolate Week
- National Agriculture Week
- National Agriculture Day

South Dakota AITC Finds Raising Funds Also Builds Support

State legislatures are sometimes seen only as a source of funds. As the South Dakota AITC program has found out, they can also help spread the word about Ag in the Classroom throughout the state.

In 1990, the South Dakota AITC board approached the legislature with a request for funding to pay for a full-time executive director for AITC activities in the state. The group secured the appropriation, says Gail Brock, state contact for AITC in South Dakota, partly because of the support of other agriculture-related organizations in the state. It also helped develop a new core group of support for the program.

The process of asking for state support for Ag in the Classroom has given us an opportunity to explain our program one- on-one with legislators," says Brock. "They go home and talk about the program in their home communities. That in turn leads to an ever-increasing demand for our materials."

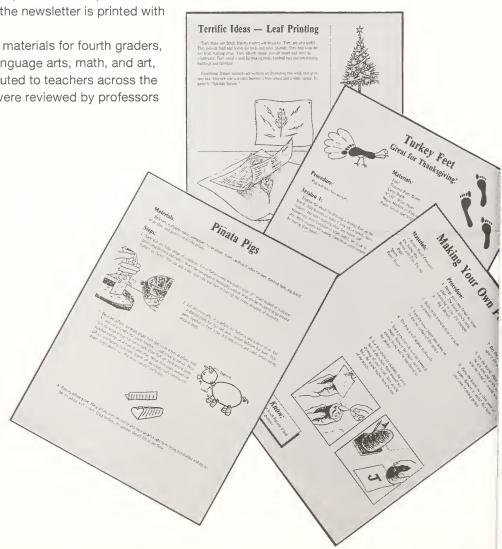
A student newsletter, South Dakota Treasures, is mailed to all fourth graders in the state. The two-color publication is accompanied by a teacher's guide. (To emphasize the importance of agricultural products, the newsletter is printed with soy ink.)

A set of curriculum materials for fourth graders, including lessons in language arts, math, and art, have also been distributed to teachers across the state. The materials were reviewed by professors

at South Dakota State University's agriculture school and Northern State University's department of teacher education.

The South Dakota program uses teacher inservice workshops as a key way of disseminating information about the program to teachers. "We've found teachers are more likely to use the materials if they get that kind of hands-on introduction than if we just mail the packets to schools," says Brock.

Career education is another important focus in South Dakota. Each issue of the newsletter features a story on someone in an agriculture-related career. The group is also developing a career education component for high school students, says Roberta Anson, AITC executive director, "We hope to enable older students to shadow a person in an agricultural career they might like to pursue whether it's an agronomist, an ag specialist, or a rancher, for example. That way, students will get first-hand information about what's involved in the job, what kind of schooling is required, and what kinds of responsibilities they would face every day."



This year, South Dakota's Ag Mag introduced students to art activities that also relate to agriculture.

USDA Scientists Develop a "Stingometer" to Locate Africanized Bees

A new "temper meter" for honeybees developed by U.S.D.A. scientists is sweet news to America's honey producers. The electronic device—the stingometer-may enable a quicker response to Africanized honeybees like those that swarmed over the Mexican border into Texas last year.

The Africanized bees, often called "killer bees" in the press, are much more protective of their territory than domestic bees. As a result, says Ralph A. Bram, the ARS national program leader for bee research, they "can become angry when disturbed by humans or animals." That reaction makes it harder for beekeepers to manage bee colonies relied on to pollinate crops and produce honey.

Although they behave very differently, Africanized bees and domestic bees look alike. Currently, bee scientists confirm the identity of bees by measuring their wing size—a process that must be done in a laboratory.

The new stingometer, on the other hand, can be hung directly in front of the hive entrance. It measures the number of stings made by a colony of bees over a period of time. The higher the number, the greater the likelihood that the hive contains Africanized bees.

Quick identification of Africanized bees will enable beekeepers to reduce the threat to domestic bee hives. "If commercialized, the stingometer could help local officials, bee breeders, and other professional and hobby beekeepers to determine which colonies have Africanized queens," Bram says. Armed with that information, beekeepers could destroy overly defensive hives or take out the old aggressive queen and replace it with a gentler one who will produce friendlier offspring.



USDA scientists have invented a "stingometer" that can help beekeepers control Africanized bees.



Quote to Note

Students need to read, think, talk, write, and sing about agriculture in every subject, and learn how it relates to each of them. They need to learn to appreciate the world around them and to begin to take responsibility for the upkeep and development of their environment. This can only be done by educating our future voters, whereby they will have an understanding of how agriculture has shaped and developed our nation.

-Dr. Paul Czarnecki, Oklahoma AITC

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The individuals listed here are key reference persons in each state. If you have any questions, want to make reports, or need more information about your state's Ag in the Classroom program, contact the following:

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